PF fixed combination (DTFC PF), and tafluprost PF/timolol PF unfixed-combination (TTUF PF) for the treatment of primary open-angle glaucoma (POAG). **METHODS:** A cost-effectiveness and cost-utility model was developed to estimate lifetime costs and outcomes. The analysis was performed from a UK NHS perspective. No head-to-head evidence was available for BTFC PF and the comparators; therefore effectiveness estimates in terms of the mean lowering of intraocular pressure (IOP) at Week 12 were estimated using a mixed treatment comparison (MTC). Estimates of visual field progression were taken from the literature and modelled by an irreversible decrease in patients' mean deviation (MD) score in each 12-week cycle. Resource use levels for each of the health states were obtained using a clinician survey. All costs and utilities were obtained from literature or NHS cost sources. Outcomes were reported in terms of cost per mmHg IOP gained and cost per quality-adjusted-life-year (QALY). Deterministic and probabilistic sensitivity analyses were performed. **RESULTS:** The cost-effectiveness results indicated that BTFC PF dominates DTFC PF and TTUF PF, with patients treated with BTFC PF having a greater IOP reduction (1.6 mmHg) and incurring lower lifetime costs (£2,294 vs. DTFC PF, £2,919 vs. TTUF PF). The cost-utility results indicate BTFC PF dominates DTFC PF and TTUF as well with an incremental gain of 0.03 QALYs. Deterministic sensitivity analyses indicate the results are most sensitive to the rate of visual field progression. Probabilistic sensitivity analysis indicates that BTFC PF has a 98.8% probability of being cost-effective at a threshold of £20,000/QALY. **CONCLUSIONS:** BTFC PF is considered a cost-effective treatment option for the treatment of POAG when compared with DTFC PF and TTUF PF from a UK NHS perspective.

PSS30

COST-MINIMIZATION ANALYSIS OF INTRAVITREAL AFLIBERCEPT (IVT-AFL) FOR NEOVASCULAR AGE-RELATED MACULAR DEGENERATION IN SPAIN

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OBJECTIVES: Anti-VEGF therapy improves visual acuity in patients with neovascular ("wet") age-related macular degeneration (wAMD). By comparing different treatment regimen scenarios, based on data from available randomized clinical studies, the objective was to compare costs for intravitreal aflibercept (IVT-AFL) treatment with Ranibizumab treatment when treating wAMD patients in a Spanish setting. **METHODS:** A Markov model, describing wAMD treatment was estimated, calculating the direct medical costs based on 2-year clinical trial data. Parameters were estimated from trial data, published literature, and expert opinion. Costs, discounted at 3% per year, were calculated over a five-year horizon. Alternative scenarios and deterministic sensitivity analyses were performed and reported. **RESULTS:** IVT-AFL, dosed every two months in Year 1 and modified quarterly dosing in year two, was least expensive, €13,519, followed by IVT-AFL every second month, for two years, €16,085. Cost of Ranibizumab monthly (RBZ Q4) regimens ranged from €17,284 (12.6 injections over two years) to €26,457 (monthly injections over two years). Results were driven by less frequent IVT-AFL dosing and monitoring. The model was most sensitive to RBZ Q4 Year 1 efficacy and Year 2 injection frequency. **CONCLUSIONS:** IVT-AFL is less expensive than Ranibizumab when treating wAMD in Spain, due to less frequent dosing with IVT-AFL and lower monitoring costs.

PSS31

COST-MINIMIZATION ANALYSIS OF MULTIFOCAL AND MONOFOCAL INTRAOCULAR LENSES IN CATARACT SURGERY IN THE CZECH REPUBLIC

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OBJECTIVES: To model the lifetime cost attributed to intraocular lenses (multifocal vs. monofocal) implantation during cataract surgery from patient's perspective. **METHODS:** The Markov model was developed with 28-day cycle length projecting life-time costs of patients undergoing cataract surgery of both eyes at 65 years. Patients move among four health states which occur after cataract surgery. Patients become independent on the spectacles or need them after cataract surgery with probabilities derived from literature. In the model, we assume that new glasses are bought by patients, who wear glasses after surgery, every three years. Patient may die from each health state with probability derived from Czech life-tables there was no difference in mortality specific for particular intraocular lenses. Resource utilization was received by an expert panel and unit costs were derived from current pricing list. Costs of cataract surgery with multifocal and monofocal lenses implantation were 1,200EUR and 9.9EUR, respectively. Mean costs of spectacles were 48.9EUR and 82.5EUR after the intervention of implanting multifocal and monofocal lenses, respectively and monthly costs of ophthalmologist visit, maintenance and service of spectacles was 0.4EUR. Discount rate of 3% was applied. One-Way Sensitivity Analysis was performed. **RESULTS:** After cataract surgery with multifocal lenses implantation, patients purchase on average by 4.4 spectacles less compare to patients undergoing monofocal intraocular lenses implantation (i.e. 5.9). The initial patient's investment of 1,190EUR into multifocal IOLs is in the lifetime horizon partially offset by saving of 364EUR attributed to lower number of new spectacles purchased and their maintenance. Costs on spectacles after cataract surgery with monofocal lenses and level of reimbursement of multifocal lenses were the biggest driver of the results. **CONCLUSIONS:** Bilateral multifocal IOL implants decrease patient's dependence on spectacles. From patient's perspective, the initial investment into multifocal lenses is partially compensated by saving of spectacles costs and its maintenance.

PSS32

A QUEBEC ECONOMIC EVALUATION FOR 36 MONTHS OF RANIBIZUMAB FOR THE TREATMENT OF DIABETIC MACULAR EDEMA

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OBJECTIVES: The value of ranibizumab monotherapy and laser combination therapy compared to laser photocoagulation was assessed within the framework of a cost-utility analysis from the Quebec health care and societal perspectives. **METHODS:** A Markov model followed a cohort of patients with diabetic macular edema over a lifetime time horizon. The model included 8 heath states as defined by best-corrected visual acuity and one absorbing state for death. All transition probabilities in Year 1 were based on the RESTORE trial. For Years 2 and 3 data from the RESTORE Extension trial was used to inform ranibizumab monotherapy and combination therapy transition probabilities. For laser photocoagulation, Years 2 and 3 transition probabilities were based on data from DRCR.net trials. From Year 4 onwards, all transition probabilities were based on the natural history of disease. Health state utilities were derived from the literature (for the best-seeing eye) and a Canadian utility study in RVO patients (for the worse-seeing eye). Resource use and costs were collected from published literature and standard Quebec sources. Costs and outcomes were discounted at 5% as recommended by Canadian guidelines. **RESULTS:** From the health care perspective, patients receiving ranibizumab monotherapy accrued an additional 0.40 quality-adjusted life years (QALYs) and an incremental cost of CAD$9,790, resulting in $24,345 per QALY gained. Patients receiving combination therapy accrued an additional 0.32 QALYS and an incremental cost of $11,387, resulting in $36,148 per QALY gained. At a willingness-to-pay threshold of $50,000, ranibizumab monotherapy and combination therapy had a 75.2% and 59.3% probability of being cost-effective (CE), respectively. From the societal perspective, considering costs from productivity losses, ranibizumab monotherapy and combination therapy dominated laser photocoagulation and had an 88.2% and 78.8% probability of being CE, respectively. **CONCLUSIONS:** Compared to laser photocoagulation, ranibizumab monotherapy and combination therapy for 3 years show cost-effectiveness from health care and societal perspectives.

PSS33

A COST-UTILITY ANALYSIS OF RANIBIZUMAB IN AGE-RELATED MACULAR DEGENERATION BASED ON REAL-LIFE OBSERVATIONAL DATA IN FRANCE

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OBJECTIVES: To calculate the cost-effectiveness of ranibizumab versus licensed comparators in wet age-related macular degeneration (AMD) from a French societal perspective based on real-life observational data. **METHODS:** A Markov model was developed containing 5 health states defined by visual acuity (VA) of the treated eye and a death state. The model time horizon covered 2 years of treatment followed by 8 years of best supportive care (BSC). Medical and non-medical resource use and efficacy during treatment were based on observational patient-level data with ranibizumab (LUEUR and LUMIERE studies) or verteporfin (OPV study). No observational data were available for pegaptanib. Efficacy was obtained per VA level to control for population differences in baseline VA. The base-case analysis reflects 1st line therapy. Mutual to both comparators, BSC was modelled with clinical trial placebo data and resource use estimates. Annual discount rates were 4% for costs (€ 2011) and outcomes. Utilities reflected general population preference (UK) using time-trade-off methods. **RESULTS:** Compared to verteporfin, 1st line ranibizumab provided a gain of 0.20 QALYs and avoided 0.63 years of vision impairment (Y_{VI}). The total incremental cost was €3,843. The cost-utility was €19,088/QALY, the cost per Y_{VI} avoided was €6,114. Similar outcomes were obtained when including pre-treated patients. Ranibizumab was cost-effective with a probability of 62.8% and 78.2% at willingness to pay thresholds of €20,000/QALY and €30,000/QALY respectively. **CONCLUSIONS:** Based on real-life observational studies, 2-year treatment with ranibizumab was associated with improved vision-related health outcomes and a cost-utility ratio below commonly applied willingness to pay thresholds.

PSS34

COST-EFFECTIVENESS OF SEQUENCES OF BIOLOGIC TREATMENTS FOR MODERATE-TO-SEVERE PSORIASIS IN FINLAND

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BACKGROUND: Little is known about the health-economic properties of sequences of biologics agents for the treatment of moderate-to-severe psoriasis. These are available to patients who have failed to achieve therapeutic goals on the traditional systemics such as methotrexate and ciclosporin. **OBJECTIVES:** To predict the five-year costs and health outcomes associated with different sequences of biologic psoriasis treatments (adalimumab, etanercept, infliximab, and ustekinumab), and to evaluate their cost-effectiveness from a Finnish societal perspective. **METHODS:** The Psoriasis Area Severity Index (PASI) was chosen as the main efficacy measure and results of a published meta-analysis were re-run to provide relative efficacy of the biologics in the short term. A fully stochastic Markov cohort model was developed that represents patient health in terms of PASI, Dermatology Life Quality Index (DLQI), and quality-adjusted life-years (QALY). Failure to achieve efficacy targets, serious adverse events and other reasons of withdrawal led to switch to the next treatment in the sequence, and eventually methotrexate maintenance. Costs included direct medical and related direct costs as well as productivity losses. Costs and QALYs were discounted at 3% per annum. **RESULTS:** At a willingness-to-pay threshold of EUR 50,000 per QALY gained, only four of the 60 potential sequences had non-zero probability of being cost-effective. The sequence most likely to be cost-effective was first-line ustekinumab followed by adalimumab followed by maintenance. Its incremental cost-effectiveness ratio (ICER) per QALY gained relative to the cheapest sequence (etanercept followed by adalimumab) was estimated at EUR 8,253. Some modelling assumptions tested in the sensitivity analyses may be influential in driving the results, but others, for example inclusion of an anti-TNF class effect, made